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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/931,607 | 08/16/2001 | George E. Bittner | 050438-302286 | 9611 |

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EXAMINER

NGUYEN, HOANG M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3748

DATE MAILED: 07/01/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,607

Applicant(s)

BITTNER, GEORGE E.

Examiner

Hoang M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 6-7, 10-13, 15-17, 19, 39-40, 44-45, 47-48, 50-53, 57, 59-61, 63-66, 70, 76-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 14.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

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Applicant's amendment dated June 05, 2003, has been fully considered.

During the interview dated June 05, 2003, Applicant has asked the Examiner to reconsider claims 80, 82, 84, 86. As noted in the interview, the applied references clearly disclose the claimed subject matter of claims 80, 82, 84, 86, which recites all the weight shift is from a position between 1 to 179 degrees, and 181-359 degrees. All applied references disclose the weight shift starts around 160 degree near the bottom of the impeller and therefore, clearly meet the specific number as claimed.

Applicant has further asked the Examiner to reconsider claims 15, 50, 63, 76, which recite the cooling chamber is 45 degree to 315 degrees spaced from the heating side. Again, it's clear that the cooling chambers in all applied references meet this specific angle.

Applicant has asked the Examiner to reconsider claims 81, 83, 85, 87 which recite the self-starting feature because the heating source is mounted on the side. The Examiner agrees, and therefore a new ground of rejection has been made.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-2, 6-7, 10-13, 15-17, 19, 39-40, 44-45, 47-48, 50-53, 57, 59-61, 63-66, 70, 72-74, 76-80, 82, 84, 86, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4121420 (Schur).

Schur discloses a heat engine comprising a heating side (40) expansion chambers (58), and cooling side (upper chamber) expansion chamber (52-54), elastic walls in forms of bellows (70-84) for expanding and contracting in response to the temperatures, support member 30 for supporting said chambers for rotations, inside each tank (50-64) is the refrigerant 94 which can be expanded and contracted, and the weights of said liquid provide the shift off-center balance to rotate the whole apparatus. Regarding the concept of different output motions such as reciprocating, linear, it's well known to convert the output of the shaft to different motions.

Claims 1-2, 6-7, 10-13, 15-17, 19, 39-40, 44-45, 47-48, 50-53, 57, 59-61, 63-66, 70, 72-74, 76-80, 82, 84, 86, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4051678 (Yates).

Yates discloses a heat engine comprising a heating side expansion chambers , and cooling side expansion chamber, elastic walls in forms of diaphragms (24) for expanding and contracting in response to the temperatures, support member for supporting said chambers for rotations, inside each tank 22 is the refrigerant which can be expanded and contracted, and the weights of said liquid provide the shift off-center balance to rotate the whole apparatus. Pipes 34 for connecting and shifting fluid from one tank to the other. Regarding the concept of different output motions such as reciprocating, linear, it's well known to convert the output of the shaft to

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different motions.

Claims 1-2, 6-7, 10-13, 15-17, 19, 39-40, 44-45, 47-48, 50-53, 57, 59-61, 63-66, 70, 72-74, 76-80, 82, 84, 86, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4074534 (Morgan).

Morgan discloses a heat engine comprising a heating side expansion chambers , and cooling side expansion chamber, elastic walls in forms of diaphragms (30) for expanding and contracting in response to the temperatures, support member for supporting said chambers for rotations, inside each tank 21 is the refrigerant which can be expanded and contracted, and the weights of said liquid provide the shift off-center balance to rotate the whole apparatus. Pipes 22 for connecting and shifting fluid from one tank to the other. Regarding the concept of different output motions such as reciprocating, linear, it's well known to convert the output of the shaft to different motions.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 81, 83, 85, 87, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 4121420 (Schur) in view of U.S. 3984985 (Lapeyre). Schur discloses all the claimed subject matter as set forth above in the rejection of claim 1, but does not disclose the self-starting

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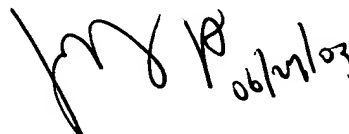
feature. Lapeyre discloses that it's well known to mount the heating source 36 at one side therefore the impeller can be started without any external input force. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount the heat source of Schur at one side as taught by Lapeyre for the purpose of self starting the impeller if needed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Nguyen whose telephone number is (703) 308-3477. The examiner can normally be reached on Monday--Thursday from 7:30 AM to 6:00 PM.

Any inquiry concerning any general questions regarding patent examining policies and procedures should be directed to Patent Assistance Center (PAC) at 800-PTO-9199 or (703)-308-HELP (703)-308-4357), or Customer Service of TC 3700 at (703) 306-5648.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion, can be reached on (703)-308-2623. The fax phone number for the Examiner is (703) 746-4559.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.

Handwritten signature of Hoang Nguyen, dated 06/27/03.

HOANG NGUYEN
PRIMARY EXAMINER
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Hoang Minh Nguyen
June 27, 2003

Continuation of Disposition of Claims: Claims pending in the application are 1,2,6,7,10-13,15-17,19,39,40,44,45,47,48,50-53,57,59-61,63-66,70 and 76-87.